

CLAIMS

1. A near infrared absorption polymer comprising at least two different pendent infra-red chromophoric moieties covalently bonded to the backbone of an alkali-soluble resin, at least one of which is an indole cyanine dye and the other of which is a benz [e]-indole cyanine dye.
2. A near infrared absorption polymer as defined in claim 1, characterized in that the resin is an alkali soluble phenolic resin, preferably a novolak resin.
3. A near infrared absorption polymer as defined in claims 1 or 2, characterized in that the indole cyanine dye is selected from the group formed by
1-Butyl-2-(2-[3-[2-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-ethylidene]-2-chloro-cyclohex-1-enyl]-vinyl)-3,3-dimethyl-3H-indolium hexafluorophosphate,
15 2-[2-[2-Chloro-3-[2-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-ethylidene]-1-cyclopenten-1-yl]-ethenyl]-1,3,3-trimethyl-3H-indolium chloride, or
2-[2-[2-Chloro-3-[2-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-ethylidene]-1-cyclopenten-1-yl]-ethenyl]-1,3,3-trimethyl-3H-indolium 4-methylbenzenesulfonate
20 or other salts thereof.
4. A near infrared absorption polymer as defined in any of claims 1-3, characterized in that the benz [e]-indole cyanine dye is selected from the group formed by
2-[2-[2-Chloro-3-[2-(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benzo[e]indol-2-ylidene)-ethylidene]-1-cyclohexen-1-yl]-ethenyl]-3-ethyl-1,1-dimethyl-1H-benzo[e]indolium tetrafluoroborate, or
25 3-Butyl-2-(2-[3-[2-(3-butyl-1,1-dimethyl-1,3-dihydro-benzo[e]indol-2-ylidene)-ethylidene]-2-chloro-cyclohex-1-enyl]-vinyl)-1,1-dimethyl-1H-benzo[e]indolium hexafluorophosphate,
30 or other salts thereof.

5. A near infrared absorption polymer as defined in any of claims 1-4, characterized in that the number ratio of indole cyanine dye to benz [e]-indole cyanine dye is comprised in the range of 1:1 to 1:5, preferably in the range 1:1 to 1:2.
- 5 6. A near infrared absorption polymer as defined in claim 5, characterized in that the number ratio of indole cyanine dye to benz [e]-indole cyanine dye is about 1:1.
7. A near infrared absorption polymer as defined in any of claims 1-6, characterized in that the number ratio of total pendent IR chromophoric moieties relative to the parent alkali-
10 soluble resin is comprised in the range from 1:50 to 1:3, more preferably in the range from 1:30 to 1:5.
- 15 8. A heat sensitive positive working lithographic printing plate precursor comprising a substrate and a near infrared absorption polymer as defined in any of claims 1-7 in a layer coated on the substrate.
9. A heat sensitive positive working lithographic printing plate precursor as defined in claim 8 wherein the dry coat weight of the coating layer comprising a near infrared absorption polymer is in the range 1,4-1,9 g/m².
- 20 10. A process of manufacture of a heat sensitive positive working lithographic printing plate precursor which comprises
a) applying to a substrate a composition in a solvent wherein the composition comprises a near infrared absorption polymer as defined in any of claims 1-9 and
25 b) drying the coated substrate to give the plate precursor.
11. A method of producing a printing form from a heat sensitive positive working lithographic printing plate precursor comprising a) imagewise exposing a printing plate precursor as defined in claims 8 or 9 with a near-infrared laser emitting at between 780 nm
30 and 850 nm and b) developing the precursor in a developing solution to remove the exposed areas.